

Table 2. Summary of findings PICO 1

| <u>Outcome</u> | <u>Ultrasound-guided placement</u> <u>n/N (%) / mean (SD) / median</u> <u>(IQR)</u> | <u>Landmark-based placement</u> <u>n/N (%) / mean (SD) / median</u> <u>(IQR)</u> | <u>Relative risk ratio (RR) (95%</u> <u>CI) / Mean difference (MD)</u> <u>(95% CI)</u> | <u>Number of</u> <u>trials</u> | <u>Difference</u> <u>considered clinically</u> <u>relevant?</u> |
|--|---|--|--|-----------------------------------|---|
| 1.1 Overall success rate internal jugular vein placement | 830/841 (98.7%) | 788/830 (94.9%) | RR 0.98 (95% CI 0.95 to 1.01) | N = 9 | No |
| 1.2 Overall success rate internal subclavian vein placement | 214/237 (90.3%) | 188/232 (81.0%) | RR 0.88 (95% CI 0.76 to 1.03) | N = 5 | No |
| 1.3 Overall success rate femoral vein placement | 15/15 (100%) | 7/10 (70.0%) | RR 0.70 (95% CI 0.47 to 1.06) | N = 1 | Yes |
| 1.4 First attempt success rate internal jugular vein placement | 603/652 (92.5%) | 477/623 (76.6%) | RR 0.82 (95% CI 0.70 to 0.95) | N = 6 | No |
| 1.5 First attempt success rate subclavian vein placement | 110/161 (68.3%) | 82/163 (50.3%) | RR 0.72 (95% CI 0.54 to 0.97) | N = 3 | Yes |
| 1.6 First attempt success rate femoral vein placement | No data. | No data. | Not applicable. | Not applicable. | Not applicable. |
| 2.1 Complications internal jugular vein placement | 42/553 (7.6%) | 144/561 (25.7%) | RR 0.28 (95% CI 0.16 to 0.49) | N = 8 | Yes |
| 2.2 Complications subclavian vein placement | 10/192 (5.2%) | 42/193 (21.8%) | RR 0.26 (95% CI 0.13 to 0.51) | N = 4 | Yes |
| 2.3 Complications femoral vein placement | 0/15 (0%) | 2/10 (20.0%) | RR 0.14 (95% CI 0.01 to 2.60) | N = 1 | Yes |
| 3.1 Number of attempts in the internal jugular vein | 22/168 (13.1%) who required more than one attempt | 75/168 (44.6%) who required more than one attempts | RR 0.29 (95% CI 0.19 to 0.45) | N = 1 | Yes |
| | 1.1 (0.5) needles passes for placement of a central venous catheter | 2.2 (1.6) needles passes for placement of a central venous catheter | MD -1.10 (95% CI -1.56 to -0.64) | N = 1 | Not applicable. |
| | 1.06 (0.24) attempts | | | | |

| | | | | | |
|--|-----------------------------|-----------------------------|--|-----------------|-----------------|
| | | 1.43 (0.66) attempts | MD 0.37 (95% CI -0.62 to -0.12) | N =1 | Not applicable. |
| 3.2 Number of attempts in the subclavian vein | Median 1.0 (IQR 1.0 to 1.0) | Median 2.0 (IQR 1.0 to 4.0) | Not applicable. | N = 1 | Not applicable. |
| | 1.6 (1.0) attempts | 1.5 (0.7) attempts | MD -0.10 (95% CI -0.14 to 0.34) | N = 1 | No |
| 3.3 Number of attempts in the femoral vein | No data. | No data. | Not applicable. | Not applicable. | Not applicable. |
| 4.1 Duration of the procedure in the internal jugular vein | 4.2 (0.4) minutes | 4.7 (0.8) minutes | MD -0.50 (95% CI -0.76 to -0.24) | N = 1 | Not applicable. |
| | | | Pooled MD -36.65 (95% CI -54.47 to -18.73) seconds | N = 6 | Not applicable. |
| 4.2 Duration of the procedure in the subclavian vein | 50 (47) seconds | 62 (53) seconds | MD -12.00 (95% CI -26.09 to 2.09) | N = 1 | Not applicable. |
| 4.3 Duration of the procedure in the femoral vein | No data. | No data. | Not applicable. | Not applicable. | Not applicable. |
| 5. Mortality | No data. | No data. | Not applicable. | Not applicable. | Not applicable. |
| 6. Quality of life | No data. | No data. | Not applicable. | Not applicable. | Not applicable. |
| 7. Patients' satisfaction | No data. | No data. | Not applicable. | Not applicable. | Not applicable. |
| 8. Catheter-related interventions | No data. | No data. | Not applicable. | Not applicable. | Not applicable. |
| 9. Thrombophlebitis | No data. | No data. | Not applicable. | Not applicable. | Not applicable. |